

Notice of Allowability

Application No.

10/031,183

Examiner

Jenna-Leigh Befumo

Applicant(s)

KIMURA ET AL.

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on August 1, 2005.
2. ☒ The allowed claim(s) is/are 1-3 and 5.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Jenna-Leigh Befumo

DETAILED ACTION

Response to Amendment

1. The affidavit under 37 CFR 1.132 filed April 27, 2005 is sufficient to overcome the rejection of claims 1 – 3 based upon JP 11-061596 or Kasai et al. (5,217,796). The evidence provided in Exhibit B shows that the woven fabric used in Examples 1 – 4, woven fabric ECG75 (Examples 1 and 2) and woven fabric ECE225 (Examples 3 and 4) of JP 11-061596, which are the almost identical to the fabrics used by Kasai et al. in the examples, do not meet the limitations of the equation set forth in claim 1 or claim 2, which describes the flattening ratio of the fabric. Further, the evidence shows that the flattening ratio of the fabric is not directly related the warp of weft density of the fabric, or the cross-sectional width of the yarn. In fact in example 3 the warp direction has the highest flattening ratio, with the higher weaving density and the lower cross-sectional width. While in example 4, the weft has the higher flattening ratio with the lower weaving density, but the larger cross-sectional width. Further, the affidavit describes that a fabric having the required flattening ratio will result in improved processability. The evidence in Exhibit B is sufficient to show that the prior art, both JP 11-061596 or Kasai et al., would not inherently meet structure described by the claimed equation, nor would it be obvious to optimize the weave structure of woven fabric to meet the claimed equation since it is the combination of the yarn structure and the weave structure together, which must be modified in the prior art to produce the claimed flattening ratio.
2. The Amendment submitted on August 1, 2005, has been entered. Claim 4 has been cancelled. Claims 1, 2, and 5 have been amended. Therefore, claims 1 – 3 and 5 are pending.
3. The rejection to claim 4 is withdrawn since the claim has been cancelled.

Art Unit: 1771

4. The objection to claim 5 is withdrawn since the claim has been amended.

5. The 35 USC 102/103 rejection based on JP 11-061596 is withdrawn based on the evidence provided in the affidavit as set forth above. Also, JP 11-061596 fails to teach using glass filaments having a nominal diameter D or less as defined by JIS-R-3413. JIS-R-3413 is a Japanese Standard which defines the nominal diameter of a size D glass filament as approximately 5 microns, as shown in Exhibit A of the response.

6. The 35 USC 102/103 rejection based on Kasai et al. is withdrawn based on the evidence provided in the affidavit as set forth above, since it not obvious to modify the combination of the yarn structure and weave structure to produce the claimed flattening ratio.

REASONS FOR ALLOWANCE

7. The following is an examiner's statement of reasons for allowance:

8. The prior art fails to teach or fairly suggest a glass cloth comprising filaments having a single fiber nominal diameter of D or less, as defined by JIS-R-3413 as a diameter of 5 microns or less, and a weave and yarn structure which both the warp and weft yarn groups meet the equation $C \times A / (25 \times L \times N) \geq 0.75$ or one of the warp or weft groups meet the equation $C \times A / (25 \times L \times N) \geq 1.0$. As set forth in the disclosure, equations 1-a and 1-b define a flattening ratio which when met produce a glass fabric completely covered with the flattened warp and weft yarns and producing a uniform distribution of the glass fibers throughout the glass cloth (pages 7 – 8). The prior art fails to teach or fairly suggest using the claimed equation to optimize the woven fabric structure or that producing a fabric with uniform distribution of the glass fibers as defined by the equation would be desired. Thus, claims 1 – 3 and 5 are allowed.

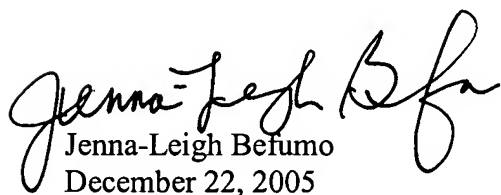
Art Unit: 1771

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jenna-Leigh Befumo
December 22, 2005